BY ORDER OF THE COMMANDER
AIR FORCE MATERIEL COMMAND

AFMC PAMPHLET 64-101

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Contracting

UNSOLICITED PROPOSAL GUIDE

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This pamphlet provides information for the preparation and submission of unsolicited proposals (UP). This publication is designed to aid in the preparation and submission of UPs pursuant to *Federal Acquisition Regulation* (FAR) (Subpart 15.5), and AFMCFARS 5315.5. This pamphlet applies to any organization or person wishing to submit a UP. It does not apply to the Air National Guard or Air Force Reserve units and members.

The use of a name of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF REVISIONS

Incorporates FAR (Subpart 15.5) requirements, UP Process Flowchart (attachment 1), and updates the current Air Force Materiel Command (AFMC) UP focal points, addresses, and mission statements.

1. Need for UPs:

1.1. AFMC is responsible for the rapid advancement of technology and its adaptation to operational systems. AFMC is organized to provide the most up-to-date and effective management of all Air Force scientific and technical resources.

1.2. AFMC takes an idea from research through development to production and then provides logistics support for fully-operational systems to Air Force operating commands. These systems include, but are not limited to, the bomber and missile systems of the Air Combat Command, the cargo aircraft of the Air Mobility Command, and command and communications systems within the Air Force and throughout the Department of Defense (DoD).

1.3. To create, acquire, and deliver these systems at an acceptable cost in the face of pressing schedules and in a rapidly changing technical environment, takes time, technology, facilities, and professional people. AFMC meshes these resources into a worldwide organization of personnel whose responsibilities span the entire acquisition process.

1.4. UPs are a valuable means for government agencies to obtain innovative or unique methods or approaches to accomplish their mission from sources outside the government. AFMC has found that UPs provide an important tool for accomplishing functions not always served by solicited proposals. AFMC welcomes UPs and appreciates the contribution they make toward ensuring the continuing superiority of the Air Force through technological leadership.

2. Definitions:

2.1. Advertising Material. Material designed to acquaint the Air Force with a prospective contractor's present products or potential capabilities, or designed to ascertain the Air Force's interest in buying such products.

2.2. Commercial Product Offering. Offers of a commercial product such as an item, material, component, subsystem, or system, sold or traded to the general public in the course of normal business operations at prices based on established catalog or market prices.

2.3. Contribution. Concepts, suggestions, or ideas presented to the Air Force for its use, with no indication that the offeror will devote any further effort relating to such concepts, suggestions, or ideas on behalf of the government.

2.4. Technical Correspondence. Written requests for information regarding government interest in research areas, preproposal explorations, technical inquiries, research descriptions, and other written technical inquiries.

2.5. Unsolicited Proposals. UPs are distinguished from proposals that Air Force contracting activities request from qualified sources. A UP is a unique and innovative written offer submitted to an agency on the initiative of the offeror for the purpose of obtaining a contract with the government and which is not in response to a formal or informal request (other than an agency request constituting a publicized general statement of needs). Although not an all inclusive list, the following are examples of potential submissions that are not considered UPs: advertising

material; commercial product offerings; contri-butions; or technical correspondence (defined in paragraphs 2.2 through 2.4).

2.6. Unsolicited Research Proposals (URP). An URP is a UP which attempts to:

2.6.1. Determine and exploit the potential of scientific discoveries or improvements in technology, materials, processes, methods, devices, or techniques; and attempts to advance the state of the art.

2.6.2. Increase scientific knowledge, (i.e., it is directed toward a fuller knowledge or understanding of the subject under study rather than any practical application of that knowledge). The UP and URP evaluation processes do not differ, but there are substantial differences in publishing, justifying, and awarding a UP versus a URP. Favorably evaluated URPs automatically qualify under FAR 6.302-1(a)(i) for other than full and open competition. FAR 15.507(b)(5) makes it clear that nonresearch UPs will not automatically qualify for other than full and open competition and may have to be returned, unless they can be determined to meet other provisions under FAR Subpart 6.3. See attachment 1 for further details.

3. Who May Submit UPs. AFMC encourages any organization or person outside the Air Force to submit UPs.

4. Advance Consultations. AFMC encourages any potential offeror to contact field technical personnel before preparing a detailed UP or submitting pro-prietary data. Such contacts can answer questions as to the general need for the proposed effort. These contacts should not be construed as any form of negotiation in contemplation of any contractual arrangement for the Air Force by either party. Attachment 2 lists the AFMC organizations, their telephone numbers, and mailing addresses, and a functional statement for each organization. Attach-ment 1 flow charts the UP process with FAR (Sub-part 15.5) requirements.

5. Proprietary Information:

5.1. A UP received by the Air Force is considered an Air Force record and is subject to the provisions of the Freedom of Information Act (FOIA) for disclosure to the public. It will generally be exempted from disclosure if it concerns or relates to trade secrets, processes, operations, style of work, or apparatus, and contains information that concerns or relates to the identity, confidential statistical data, amount or source of income, profits, losses, or expenditures of a person, firm, partnership, corpor-ation, or association. Government personnel are prohibited from disclosing the submitter's properly marked proprietary information to unauthorized personnel. In fact, they may be subject to criminal penalties for improper disclosures. If the information is not properly marked as proprietary, but it is clear that the submitter either mistakenly omitted or otherwise expects the government to protect it from disclosure, the best practice is to contact the sub-mitter and ask if the their company considers the information proprietary and desires to have it properly marked. If, at the submitter's request, the proposal is returned or otherwise disposed of, it will no longer be considered an Air Force record under the FOIA.

5.2. A UP may include data that the offeror does not want disclosed for any purpose other than evalu-ation. If the offeror wishes to restrict the proposal, the title page must be marked with the following legend:

USE AND DISCLOSURE OF DATA

"This data shall not be disclosed outside the government and shall not be duplicated, used, or disclosed in whole or in part for any purpose other than to evaluate the proposal; provided, that if a contract is awarded to this offeror as a result of or in connection with the submission of this data, the government shall have the right to duplicate, use or disclose the data to the extent provided in the contract. This restriction does not limit the government's right to use information contained in the data if it is obtained from another source without restriction. The data subject to this restriction is contained in Sheet _____." However, the use of this notice shall not be used to justify the withholding of a record nor to improperly deny the public access to a record where an obligation to release the record is imposed on an agency by the Freedom of Information Act, 5 U.S.C. 552, as amended.

5.3. The offeror shall mark each sheet of data that needs to be restricted with the following legend:

"Use or disclosure of proposal data is subject to the restriction on the title page of this proposal."

6. When and How to Submit Proposals

6.1. UPs may be submitted at any time. Submit proposals to the cognizant UP focal point listed in Attachment 2.

6.2. The ABCs of successful proposals are accuracy, brevity, and clarity. Specifically, each proposal should include the following:

6.2.1. Name and address of the organization sub-mitting the proposal.

6.2.2. Type of organization (large business, non-profit, educational institution, small business, small disadvantaged business, women-owned business).

6.2.3. Names and telephone numbers of technical and business personnel to be contacted for evaluation or negotiation purposes.

6.2.4. Identity of proprietary data to be used only for evaluation purposes.

6.2.5. Names of other federal, state, and local agencies receiving the proposal or funding proposed effort.

6.2.6. Date of submission and signature of a person authorized to represent the company submitting.

6.2.7. Concise title and abstract of proposed work and the statement indicating that the submission is a UP.

6.2.8. An outline and discussion for the purpose of the effort or activity, the approach and extent of effort to be used, the nature of the expected results, and how the work will help to support the Air Force mission.

6.2.9. Name and biographical information of involved key personnel and alternates.

6.2.10. Type of support needed from the Air Force, (e.g., facilities, equipment, materials, or personnel resources).

6.2.11. Brief description of the offeror's facilities, particularly those that would be used in the proposed effort.

6.2.12. Brief outline of previous work by the offeror and experience in the field.

6.2.13. Proposed price or total estimated cost of the effort in sufficient detail to be used for evaluation purposes.

6.2.14. Proposed duration of effort and period of time for which the proposal is valid.

6.2.15. Type of contract preferred.

6.2.16. If applicable, required statements about organizational conflicts of interest, security clear-ances, and environmental impacts.

6.3. Include completed AFMC Form 190, **Policy Agreement for Evaluation of Unsolicited Proposals**. AFMC Form 190 is available on the Worldwide Web at the following site: www.afmc.wpafb.af.mil\pld\ forms\afmc\

7. AFMC Form 190 Policy Agreement for Evaluation of Ups. This agreement must be signed by an officer of the company or the person sub-mitting the voluntary proposal prior to evaluation. No request for special exception or change in the policy agreement will be granted. The cognizant AFMC field activity UP focal point receiving the policy agreement will countersign and provide copies to the offeror and HQ AFMC/PKT. This agreement is to be executed only once (in duplicate) at the time of initial proposal submission. All subsequent proposal submissions will be covered by the executed policy agreement.

8. Evaluating Proposals:

8.1. AFMC organizations are responsible for acknowledging receipt of UPs within 10 workdays. If a final evaluation cannot be completed within 30 workdays, the offeror will be notified and given an estimated completion date either in the acknowledg-ment letter or by follow-up correspondence. UPs will be evaluated by appropriate personnel working in technical areas of effort similar to the UP.

8.2. The technical evaluator will:

8.2.1. Coordinate all correspondence with the appropriated government contracting officer prior to signature.

8.2.2. Provide a copy of the acceptance or rejection letter to the UP focal point.

8.3. The UP focal point will:

8.3.1. Provide the evaluation results to the offeror.

8.3.2. If the proposal offers an outstanding major advancement applicable to the Air Force mission but cannot be accepted for reasons such as insufficient funding, forward the proposal to the appropriate headquarters staff directorate for review.

8.3.3. Ensure disposition of all UPs are maintained on AFMC Form 189, Record of Unsolicited Proposal in the UP focal points office.

8.4. A UP must meet FAR 15.503(c) validity requirements:

8.4.1. Be innovative and unique.

8.4.2. Independently originated.

8.4.3. Prepared without government supervision.

8.4.4. Benefit agency mission.

8.4.5. Not be an advance proposal for a known requirement that can be competed.

If so, the proposal will be returned to the offeror (attachment 1).

8.5. It is mandatory that the UP be evaluated according to FAR 15.506-2(a) as offering:

8.5.1. Unique and innovative methods, approaches, or concepts.

8.5.2. Scientific, technical, socioeconomic merits.

8.5.3. A contribution to the agency's mission.

8.5.4. Capabilities, experience, facilities, techniques to achieve government established objectives.

8.5.5. Qualifications, capabilities, and experience of principal investigator, team leader, or key personnel to achieve UP objective.

8.6. UPs will be returned according to FAR 15.507(a) when its substance:

8.6.1. Is available to the government without restriction from another source.

8.6.2. Closely resembles a pending competitive acquisition requirement.

8.6.3. Does not demonstrate an innovative and unique method, approach or concept. However, a favorable comprehensive evaluation of a UP does not, in itself, justify awarding a contract without providing for full and open competition (attachment 1).

8.7. Except to create government-controlled records, the government will not reproduce, copy, photo-graph, reduce to drawings, or change the contents of any UP. If a proposal is accepted, the government will retain/dispose of copies in accordance with FAR 4.8. If a proposal is not accepted, the government will dispose of all copies in accordance with the offeror's instructions (See paragraph 5 "Proprietary Information"). In the absence of such instructions, the government will destroy all copies of the proposal.

9. Authority to Contract:

9.1. Only contracting officers have authority to contractually bind the government.

9.2. Requests by the evaluators for further infor-mation or resubmission after rework shall be at the expense of the offeror and shall create no obligation to the government.

9.3. If a UP is accepted, a contract may be nego-tiated between the offeror and the appropriate AFMC activity.

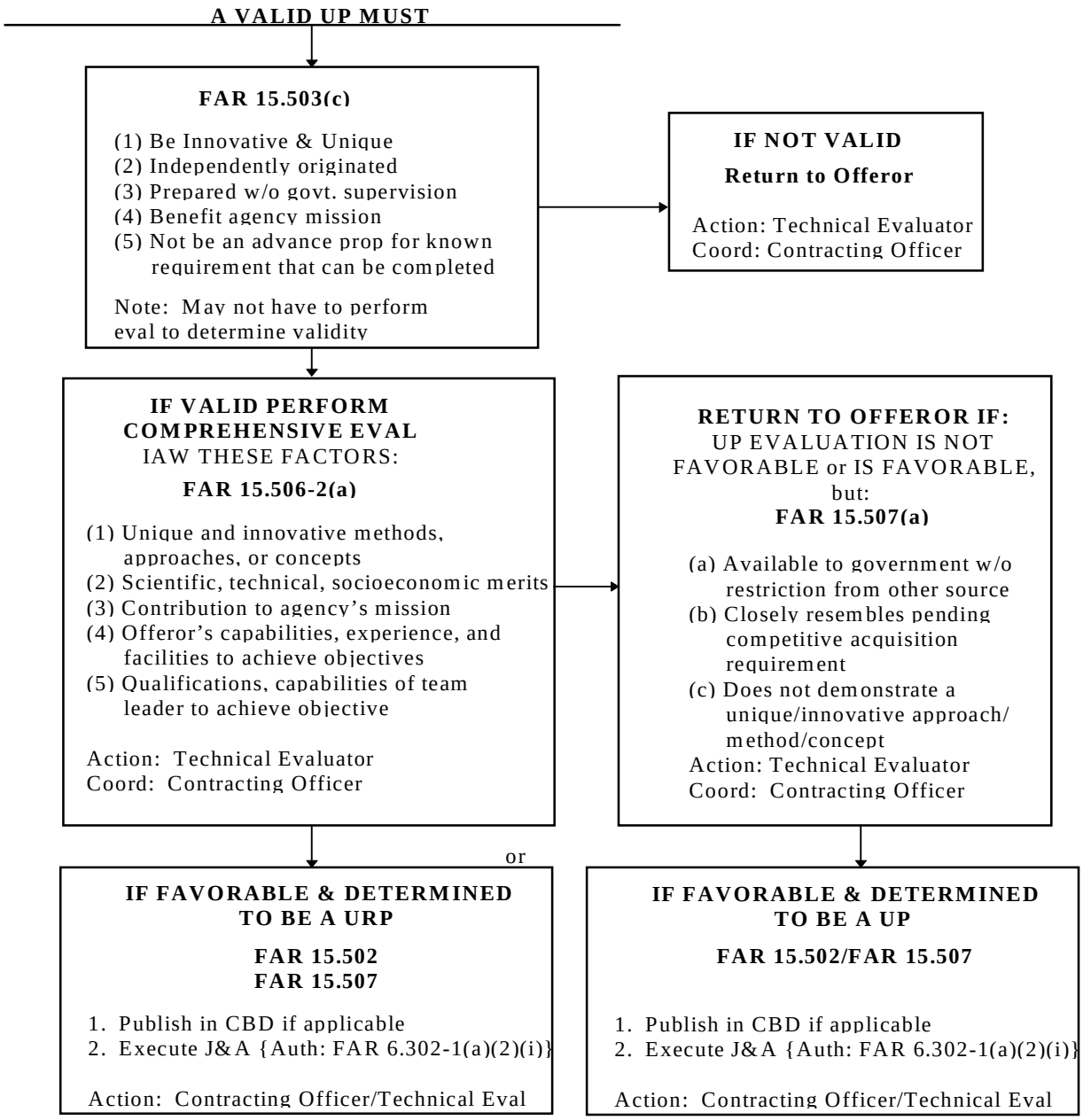
9.4. If a proposal is not accepted, the government is not obligated in any way to reimburse the offeror for any cost it may have incurred in submitting the UP.

10. Where to Submit Proposals. To expedite evaluation, send proposals directly to the AFMC organization (UP focal point) that has mission responsibility for the subject matter of the proposal (attachment 2). Offerors are also encouraged to send their UP to only one AFMC organization to avoid processing delays.

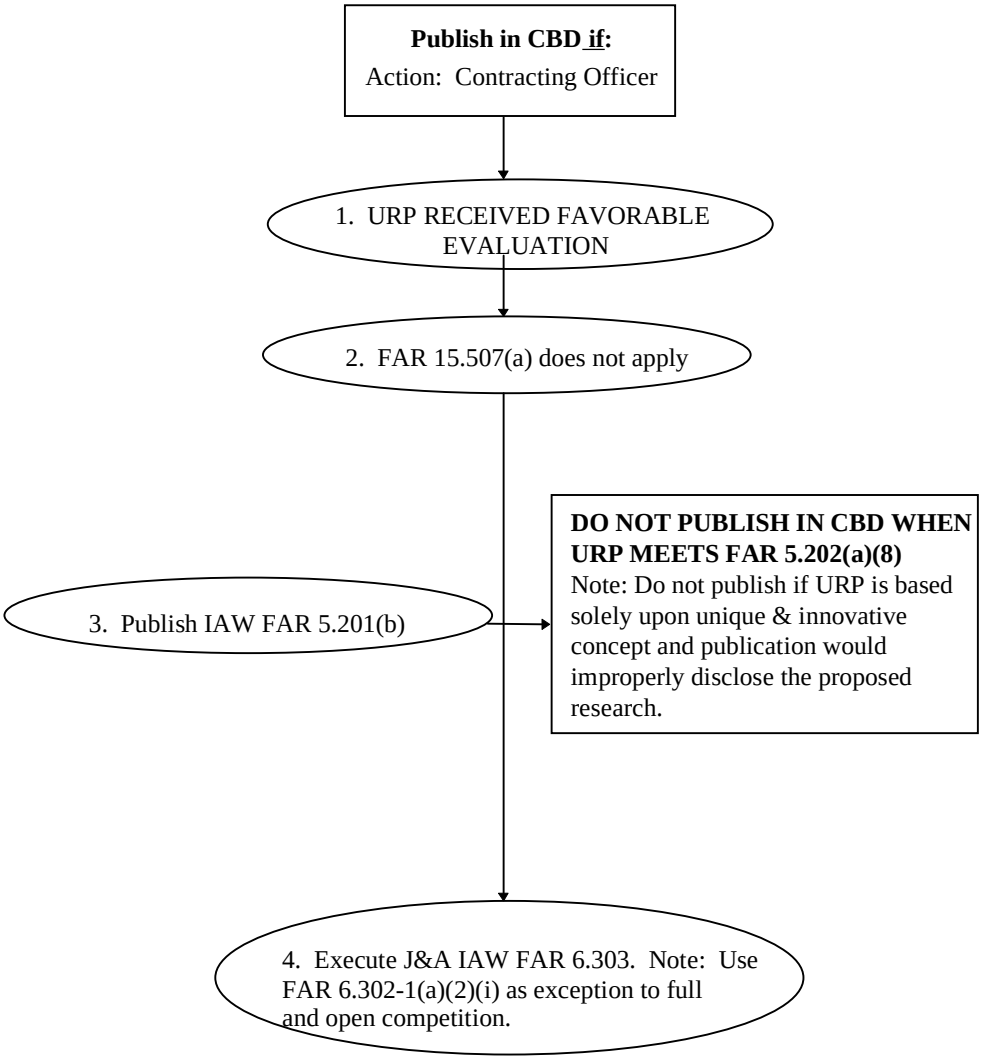
11. Where to Obtain Copies of this Pamphlet . Interested parties may obtain copies of this pamphlet and AFMC Form 190 by contacting the cognizant AFMC Publication Distribution Office at the instal-lations listed in attachment 2. The pamphlet is also available on the World-Wide Web at http:// www. afmc.af.mil/organizations/HQ-AFMC/PK/pkt/nsolpro.htm.

RICHARD E. ROELLIG, Major General, USAF
Director of Contracting

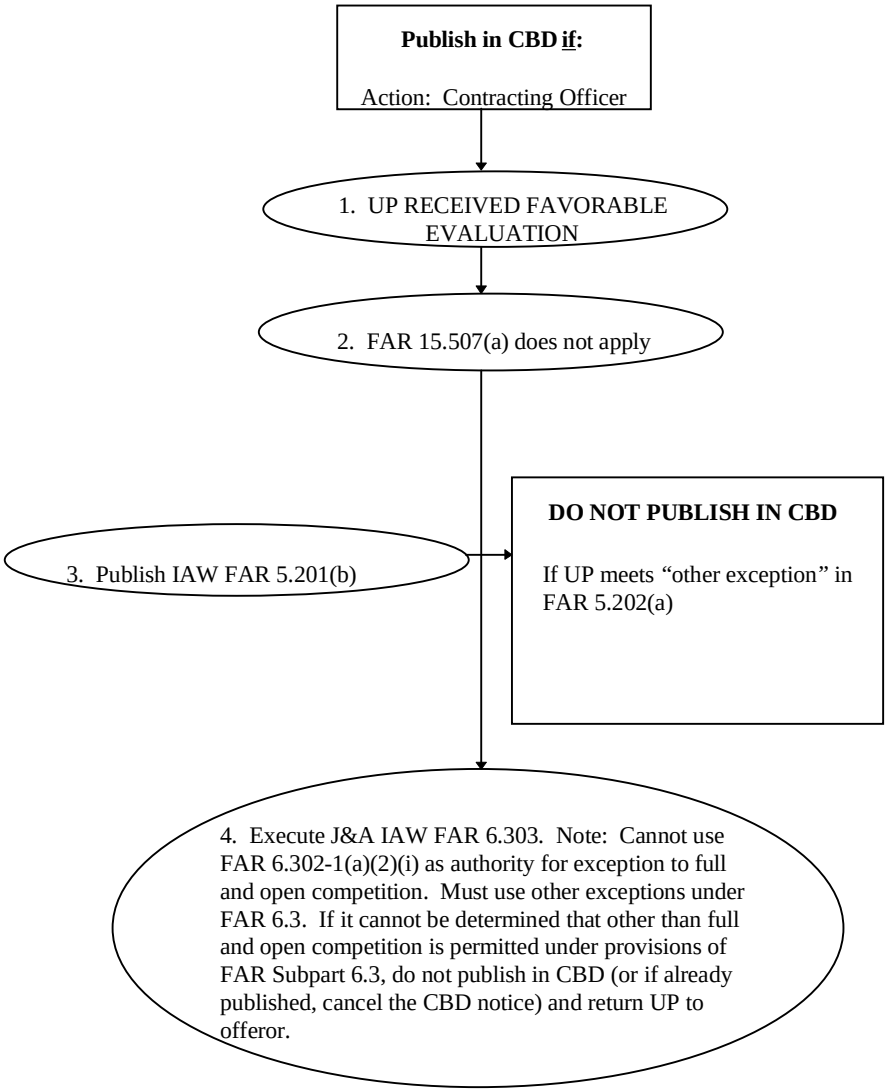
Attachment 1



UNSOLICITED RESEARCH PROPOSAL FAVORABLE
FAR 15.507 (b) (4)



UNSOLICITED PROPOSAL FAVORABLE
FAR 15.507 (b) (4)



Attachment 2

1. AERONAUTICAL SYSTEMS CENTER (ASC) Telephone: (937) 255-4119

ASC (UP Focal Point)
WL/DOR (Bldg 45)
2130 Eighth St, Suite 1
Wright-Patterson AFB OH 45433-7532

The ASC, the host unit at Wright-Patterson, is responsible for the research, development, test, evaluation, and initial acquisition of aeronautical systems and related equipment for the Air Force. Two of the center's major strategic program thrusts are the B-2 bomber, a manned bomber for penetrating enemy air defense through low-observable or stealth technology, and the Advanced Cruise Missile, an air-launched strategic missile incorporating advances in propulsion, guidance technology, and low-observable features. Other major programs include the C-17, the next generation, all-weather, direct-delivery airlifter; the F-22, the air superiority fighter of the future; and the F-16 Fighting Falcon. The center also manages the National Aerospace Plane program, a joint defense department/National Aeronautics and Space Administration (NASA) effort.

The center's Wright Laboratory (WL) plays a vital role in providing advanced technologies critical to the development of weapon systems and other equipment. Its seven directorates, six at Wright-Patterson and one at Eglin AFB, Florida, perform the full spectrum of basic research, exploratory and advanced development, and manufacturing technology development as identified below.

• Aero Propulsion and Power Directorate (WL/PO) Telephone: (937) 255-3428

The Aero Propulsion and Power Directorate plans and executes the Air Force's research, exploratory, and advanced development programs in airbreathing propulsion and aerospace power technology. Work in turbine engines includes components (fans and compressors, combustors and augmentors, turbines, exhaust nozzles, structures, controls, bearings, and lubricants), core engines (carefully integrated assemblies of compressor, combustor, and turbine), and engine technology demonstrators (for missiles, reusable unmanned air vehicles, and large and small manned systems). R&D in ramjet engines includes liquid and solid fuel systems, ducted rockets, mixed-cycle engines like air-turborockets and turboramjets and scramjets, with work conducted at both the component and engine level. The directorate develops analytical techniques, instrumentation and test methods, and liquid fuels for both turbine and ramjet engines. A major part of the directorate's program is devoted to developing new concepts in energy conversion and for the generation, conditioning, storage, and distribution of mechanical, hydraulic, and electrical power. These range from watts to megawatts and address the needs of terrestrial systems, aircraft, missiles and special Air Force applications.

(ASC Continued)

- Armament Directorate (Eglin AFB) (WL/MN) Telephone: (904) 882-8591

The Armament Directorate provides direction and implementation of program/project management for research, exploratory and advanced development on nonnuclear munitions and associated equipment and components which provide technology for future armament. Specific technologies being developed include advance seekers, missile airframes, guidance and control components, explosives, warheads, fuses, guns, and ammunition. Responsible for developing technology for kinetic energy launchers and guided projectiles in support of the electric launcher technology. Lead directorate for guided weapons technology. Provides technical support to system program offices in such areas as warhead testing, warhead vulnerability, and lethality analysis.

- Avionics Directorate (WL/AA) Telephone: (937) 255-5285

The Avionics Directorate plans and executes basic research programs, exploratory programs and advanced development programs for aerospace vehicle avionics and associated support electronics in addition to Solid State Electronics. Avionics is defined as consisting of all electronics onboard an aerospace (missile, aircraft, or spacecraft) vehicle. The mission is broad. It includes primary areas such as navigation, surveillance, reconnaissance, electronic warfare, fire control, weapon delivery, communications, system architecture, information and signal processing, subsystem integration, supporting electronics, and software research, development, and application. In the near term, the focus on avionics is to develop technologies which will:

(1) Detect, recognize, identify, and strike noncooperative targets at long ranges, in all weather, day, or night.
(2) Provide multimission protection and survivability of aerospace vehicles against advanced electronics combat threats.
(3) Enable totally integrated avionics suites which are both cost effective and mission effective.

The focus in Solid State Electronics is electronic device research, microelectronics, microwave/millimeter wave and electro-optic technologies. Areas of specialty include:

(1) Evolutionary new device con cepts, device and semiconductor physics, materials characterization and evaluation.
(2) Device technology for logic and electronic processing, ultra high speed digital switching devices, high speed or density integrated circuit packaging, high-level integration techniques.
(3) Thermionic devices, monolithic microwave integrated circuits, semiconductor low noise and power amplifiers, control devices transmit and receive modules, advanced microwave sensor concepts.
(4) Laser and incoherent light source s, nonlinear optical devices and interactions, optical processing, detectors, and focal plane arrays.

(ASC Continued)

- Flight Dynamics Directorate (WL/FI) Telephone: (937) 255-5066

The Flight Dynamics Directorate plans, formulates, and executes Air Force basic research; exploratory and advanced development programs for aerospace flight vehicle structures vehicle subsystems; flight control sciences and simulation; aeromechanics and cockpits. Acts as the focal points for nonnuclear survivability research and development. Gives technical and management support of aerospace systems. Maintains preeminent technical and scientific leadership in the above areas. Is lead directorate for air vehicle technologies in the 21st century, experimental flight vehicles, and Crew Systems Integration.

- Manufacturing Technology Directorate (WL/MT) Telephone: (937) 255-4623

The Manufacturing Technology Directorate plans, initiates, conducts and manages the Air Force Manufacturing Technology Program which establishes the manufacturing processes, techniques, and equipment which must be made available for timely, reliable, and economical quantity/quality production of Air Force material. Initiates, manages, and monitors long range research programs which address gaps in the science base for manufacturing related to the industrial base. Responsible for planning and managing programs in Concurrent Engineering, Electronics, Processing and Fabrication of metals, and nonmetals, Information Science, Repair Technology, and implementation of the DoD Title III program. Responsible for developing a consolidated investment strategy in manufacturing.

- Materials Directorate (WL/ML) Telephone: (937) 255-7174

The Materials Directorate is the principal organization charged with planning and executing the Air Force exploratory and advanced development and assigned basic research programs for materials. Primary areas of responsibility are: thermal protective materials; metallic and nonmetallic structural materials; metal-matrix and carbon-carbon composite materials; propulsion materials; fluids, lubricants and elastomer; aircraft and spacecraft coatings; laser hardened materials and subsystems; electronic materials; optical, infrared and radar transmitting materials, and manufacturing science. This directorate provides technical and management assistance in support of studies, analyses, development planning, acquisitions, tests, evaluations, modifications, and operations of aerospace systems and related equipment.

2. AIR FORCE DEVELOPMENT TEST CENTER (AFDTC) **Telephone: (904) 882-2841**

AFDTC/PKC (UP Focal Point)
205 West D Avenue, Suite 433
Eglin AFB FL 32542-6864

The AFDTC tests and evaluates nonnuclear munitions, electronic combat systems, and navigation/guidance systems. Home to a dozen airfields, the center has two wings: the 46th Test Wing and the 96th Air Base Wing.

- Test and Evaluation - The 46th Test Wing manages the center's overall test and evaluation program. It has extensive ground facilities and about 36 aircraft of various types. The wing manages all the large land test ranges throughout the 724 square-mile Eglin complex, as well as 86,500 square miles of water ranges in the adjacent Gulf of Mexico.

Major tests on or above the center's ranges involve all types of equipment, including aircraft systems and sub-systems, missiles, guns, bombs, rockets, targets and drones, high-powered radar, and airborne electronic countermeasures equipment. These systems are tested in a variety of environments and simulated combat conditions. One of the wing's unique assets is the McKinley Climatic Laboratory. The laboratory can test military hardware as large as bombers in environments ranging from minus 65 to plus 165 degrees Fahrenheit and with 100-mph winds, icing, clouds, rain, and snow.

The wing's 46th Test Group is at Holloman AFB, New Mexico. Among the group's unique facilities are a 10-mile, high speed test track; two radar target scatter measuring facilities; and the Defense Department's Central Inertial Guidance Test Facility.

- Support - The 96th Air Base Wing provides major services to the center and its tenants. These services include medical, civil engineering, personnel, logistics, communications, computer, and security.

3. AIR FORCE FLIGHT TEST CENTER (AFFTC) **Telephone: (805) 277-4436**

AFFTC/CD (UP Focal Point)
1 South Rosamond Blvd
Edwards AFB CA 93524-10311

The home of the AFFTC is 301,000 acres on the western edge of the Mojave Desert. Here, at Edwards AFB, California, the Air Force has tested all the aircraft in its inventory and is currently testing the B-2, F-22, and C-17.

The AFFTC supports the AFMC conducting and reporting on development test and evaluation for Air Force units, the Department of Defense, NASA, and other government agencies. The center develops, operates, and maintains the Edwards Flight Test Range and Utah Test and Training Range. It also operates the United States Air Force Test Pilot School.

At Edwards, the nation's first jet- and rocket-powered aircraft completed their first flights. It is also where men and aircraft first exceeded Mach 1 - 6 and first flew above 100,000, 200,000 and 300,000 feet.

Edwards is the site of lifting body research flights, critical to the design and development of the space shuttle. The space shuttle's approach and landing tests were conducted in 1977. The first shuttle landings from space began in April 1981. The B-2 bomber made its maiden flight at Edwards in 1989, the F-22 in 1990, and the C-17 in 1991.

- Mission Resources - To fulfill its mission, AFFTC resources include the test and evaluation mission simulator, the Benefield Anechoic Chamber, Ridley Mission Control, and the integration facility for avionics systems testing. Civilians, contractors, and military people work together to flight test and evaluate new aircraft and upgrades to aircraft already in inventory.

Among these tests are improvements to radar weapons delivery and navigation systems and a system to give tactical pilots the ability to strike ground targets from low altitudes at night and in adverse weather.

4. AIR FORCE OFFICE OF SCIENTIFIC RESEARCH (AFOSR) Telephone: (202) 767-4969

AFOSR/PKC (UP Focal Point)
110 Duncan Ave, Suite B115
Bolling AFB DC 20332-0001

Manages all Air Force basic research. Plans, coordinates, and executes programs to stimulate, support, and conduct basic research responsive to technical guidance of HQ AFMC and requirements of the Air Force. Maintains research infrastructure within Air Force and university laboratories. Ensures transition of research results to support USAF operational needs. AFOSR's scientific directorates are as follows:

- Directorate of Aerospace and Engineering Sciences Telephone: (202) 767-4987

Plans, directs, and coordinates the Air Force in-house and extramural research program in the fields of structural materials, solid mechanics, structures, civil engineering, fluid mechanics, and propulsion of relevance to the advancement and maintenance of the required Air Force technological and operational capability.

- Directorate of Chemistry and Materials Sciences Telephone: (202) 767-4960

Plans, directs, and coordinates the Air Force in-house and extramural research program in the fields of chemistry and materials science to ensure maximum value in maintaining a superior technological and operational capability for the Air Force.

- Directorate of Physics and Electronics Telephone: (202) 767-4984

Plans, directs, and coordinates the Air Force in-house and extramural research program in the fields of physical and electronic sciences to ensure maximum value in maintaining a superior technological and operational capability for the Air Force.

- Directorate of Life and Environmental Sciences Telephone: (202) 767-5021

Plans, directs, and coordinates the Air Force in-house and extramural research program in the fields of life and environmental sciences to ensure maximum value in maintaining a superior technological and operational capability for the Air Force.

- Directorate of Mathematical and Computer Sciences Telephone: (202) 767-5025

Plans, directs, and coordinates the Air Force in-house and extramural research program in the fields of mathematics and computer sciences to ensure maximum value in maintaining a superior technological and operational capability for the Air Force.

5. AIR FORCE SECURITY ASSISTANCE CENTER (AFSAC) **Telephone: (937) 257-2552**

AFSAC/CCE (UP Focal Point)
1822 Van Patton Drive
Wright-Patterson AFB OH 45433-5337

The AFSAC establishes, implements and manages the Air Force security assistance programs assigned to the command. Its command country managers ensure that USAF commitments to each of its foreign customers are met.

- Foreign Military Sales (FMS) -- The center negotiates FMS cases directly with foreign countries to provide a wide variety of materials and services to support their weapon systems. The center also helps prepare cases managed by the Secretary of the Air Force. AFMC currently manages more than 4,600 FMS cases totaling $75.1 billion, which is 93 percent of the Air Force's total cases and 97 percent of the total value of the Air Force's cases.

It supports more than 80 foreign governments, allies, and international organizations. Organized by geographic assignments, the center manages customer requirements ranging from supporting vintage World War II aircraft to purchasing sophisticated F-15 and F-16 fighters. Its customers fly more than 11,000 types of aircraft, many no longer in the USAF inventory.

- Support Programs -- The center maintains several unique programs:

-- Military Assistance Programs authorized by the President of the United States to provide specified materiel and services without cost to designated friendly foreign governments during emergencies.

-- Support to drug enforcement efforts by providing military articles and training free of charge to governments fighting drug trafficking.

-- Special Defense Acquisition Fund, a program for advanced purchase of long-lead spares.

-- Cooperative Logistics Supply Support to allow arrangements for FMS customers to invest in the USAF supply system and receive faster support.

-- Excess Defense Articles Program offering unneeded materiel to FMS customers at reduced prices.

-- FMS Excess Materiel Return Program allowing FMS customers to return their excess AFMC-managed materiel if there is a requirement in the AFMC inventory.

-- Nonstandard Item Parts Acquisition and Repair System Program for filling FMS requisitions for materiel no longer (or never) stocked by AFMC.

- Logistics Support Group -- An overseas activity of the center is the Logistics Support Group with headquarters in Riyadh, Saudi Arabia. It's responsible for the in-kingdom program management of USAF security assistance programs with Saudi Arabia. These programs now total more than $15 billion.

The group's personnel serve as technical specialists and as "Logistics Ambassadors." They maintain close working relationships with their Royal Saudi Air Force counterparts to ensure timely implementation of program requirements.

6. AIR FORCE METROLOGY & CALIBRATION **Telephone: (614) 788-5040**

AFMETCAL
Det 1/MLK - Contracting
813 Irving-Wick Drive, Suite 4M
Heath OH 43056-6116

The Aerospace Guidance and Metrology Center (AGMC) is the single Air Force center for repairing inertial guidance and navigation systems for missiles and aircraft and for certain aircraft displacement gyroscopes. It also provides a full range of engineering and consultation services on inertial systems to the Air Force and other defense department agencies.

- Technical Direction -- The center establishes, maintains, and performs overall technical direction and management of the Air Force Metrology and Calibration Program.

It operates the Air Force Measurement Standards Laboratory. It provides technical and procedural direction for operation of a single, integrated measurement system and the design and periodic calibration and certification of measurement standards used in all precision measurement equipment laboratories.

- Repair Responsibility -- The center repairs guidance and navigation systems for: A-7D/E, AC-130, B-1B, B-52G/H, C-5, F-4, F-15, F-16, F-111, KC-135, Minuteman II and III, Peacekeeper, RF-4, and SRAM.

Through interservice agreements, AGMC repairs inertial guidance and navigation systems components on the Navy's A-7E, RF-4, and Class 688 Attack Sub and the Army's OV-1D and Position and Azimuth Determining System.

7. AEROSPACE MAINTENANCE AND REGENERATION CENTER (AMARC)

Telephone:(602) 750-4001

AMARC/TIW (UP Focal Point)
4855 South Wickenburg Avenue
Davis-Monthan AFB AZ 85707-4334

AMARC stores preserved aircraft indefinitely with a minimum of deterioration and corrosion because of the meager rainfall, low humidity, and alkaline soil in Tucson, Arizona. It presently stores more than 3,200 aircraft from the Air Force, Army, Coast Guard, Marine Corps, and Navy.

In addition, it stores production tooling for aircraft such as the B-1B, A-10, F-84, and F-111 as well as pylons, pylon load adapters, engines, and rotary launchers. AMARC stores Titan missiles at its detachment at Norton AFB, California.

But the center is more than a storage facility. Almost half the aircraft received are prepared for flight or ground shipment to support the military services, government agencies, or foreign governments.

When production of older aircraft ceases, AMARC is sometimes the sole source for parts. Priority and routine reclamation projects have become a major part of AMARC's workload.

AMARC has regenerated the F-102, F-100, and F-106 aircraft for use as target drones. The F 4 will be the next aircraft regenerated for the drone program.

International Impact - One of AMARC's highly visible projects is its involvement in the treaties between the United States and the former Soviet Union. AMARC was selected as the elimination site for the ground-launched cruise missiles under the provisions of the Intermediate-Range Nuclear Forces Treaty. The Soviets were at AMARC eleven times to witness the elimination process. AMARC has now been designated to accomplish the much greater task of eliminating about 350 B-52 aircraft over a 7-year period to comply with the Strategic Arms Reduction Treaty.

8. ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) Telephone: (615) 454-6523

AEDC/DOT (UP Focal Point
1099 Avenue C
Arnold AFB TN 37389-9011

The AEDC has the most advanced and largest complex of flight simulation test facilities in the world. It has more than 50 aerodynamic and propulsion wind tunnels, rocket and turbine engine test cells, space environmental chambers, arc heaters, ballistic ranges, and other specialized units.

The center tests aircraft, missile and space systems, and subsystems at the flight conditions they will experience during a mission. It conducts a research and technology program to develop advanced testing techniques and instrumentation and to support the design of new test facilities. The center also maintains and modernizes the existing test facilities. The center frequently uses models of weapons systems in its testing, many of which are created at the center. Its customers include the Federal Aviation Administration (FAA), NASA, private industry, academic institutions, and other United States government and allied foreign agencies.

- National Resource -- Its engineers have contributed to development of many of the nation's top priority aerospace programs, such as the space shuttle, the Advanced Tactical Fighter (ATF), B-1, B-2, C 17, F-15, F-16, F-18, F-117A, and the X-29. They have worked on the Navstar Global Positioning System, the Trident Missile, the Air Launched Cruise Missile, the National Aerospace Plane, the Strategic Defense Initiative, and the Advanced Medium Range Air-to-Air Missile.

Of the center's test units, 27 have capabilities unmatched anywhere in the world. They can simulate flight conditions from sea level to outer space and from subsonic velocities to well over Mach 20. Four high-vacuum space chambers simulate space conditions from 200 to 1,000 miles high. The longest test was 45 days.

The center has the only facility in the nation built specifically to test solid-propellant rocket motors at simulated flight altitude conditions. Titan, Minuteman, and Peacekeeper missiles have been tested at the center. The motors test fired in the center's altitude cells include the 300,000 pound thrust unit of the Peacekeeper's second stage. Jet engines tested in the Engine Test Facility include a 450,000-pound thrust turbofan engine used in the largest jet transports. It was tested at speeds up to 600 mph and at simulated altitudes from 10,000 to 42,000 feet. Air-breathing engines can be tested up to Mach 3.8 and at altitudes up to 100,000 feet.

- Facility Technology -- The center conducts an applied technology program for testing facilities. It develops long-range testing requirements, conducts facility concept studies, and conducts technology projects supporting facility planning efforts. The program focuses on many areas such as hypersonic, turbine engine testing, and space testing. The program's results translate into specifications for new or improved test instrumentation, testing procedures, or computational tools.

9. ELECTRONIC SYSTEMS CENTER (ESC) **Telephone: (617) 271-4718**

ESC/XRR (UP Focal Point)
50 Griffiss Street
Hanscom AFB MA 01731-1624

ESC develops and acquires command, control, communications, computer, and intelligence systems. A command product center, it develops and acquires systems combining computers, radars, information displays and communications gear. Such systems monitor enemy forces and allow United States commanders to make quick decisions based on the latest information, and to quickly transmit those decisions to the troops in the field.

Among the systems developed by the center are Mission Planning Systems, the Airborne Warning and Control system, the Ballistic Missile Early Warning System, and the Joint Surveillance Target Attack Radar System. The center does not design or manufacture equipment; instead, civilian contractors do the design and manufacturing. The center manages the process by:

-- Determining the eventual user's operational needs.
-- Soliciting proposals from industry.
-- Selecting contractors to build the product.
-- Testing the equipment to ensure it meets requirements.
-- Defining systems to best meet those needs.
-- Monitoring the contractor's process; and, eventually.

Technology for these advanced systems is developed by the Rome Laboratory at Griffiss AFB, New York, one of the Air Force's four super laboratories. Rome Lab has its own UP focal point (See item 10).

The center also includes two offsite organizations, one at Gunter AFB, Alabama and one at Tinker AFB, Oklahoma. These organizations are described below:

- Standard Systems Group (SSG/RMB) Telephone: (334) 416-5134

The Standard Systems Group provides centralized technical management and guidance for developing, procuring and implementing communications and computer systems, and provides life cycle support for those systems. The organization serves Air Force functional managers and operational commanders through centrally-supported management information systems and builds an informational bridge across standard functional data systems to provide decision support and command and control systems to meet the needs of commanders and their staff.

- Communications Systems Group (CSG/XP) Telephone: (405) 734-9251

The Communications Systems Group provides integrated communications systems and services during peacetime and contingency operations for the Air Force and Department of Defense through engineering, installation, contracting, and materiel management; software development, modification and maintenance; and program management activities. It also provides communications systems for allied nations through the Security Assistance Program.

10. ROME LABORATORY (RL) **Telephone: (315) 330-4423**

RL/XPP (UP Focal Point)
26 Electronic Parkway
Rome NY 13441-4514

RL plans and executes research, development, test, and selected acquisition programs in support of Command, Control, Communications Computer, and Intelligence activities. The principal technical mission areas are communications, electromagnetics, surveillance, intelligence data collection and handling, information system technology, solid state sciences, microwave physics, photonics, and electronic reliability, maintainability, and compatibility.

11. HUMAN SYSTEMS CENTER (HSC) **Telephone: (210) 536-2838**

AL/XPTT (UP Focal Point)
2509 Kennedy Circle
Brooks AFB TX 78235-5118

The HSC has the role of integrating and maintaining people in Air Force systems and operations. People are the enabling factor in Air Force operations. Recognizing this, the center was established as the Air Force agent for human-centered research, development, acquisition, and specialized operational support. The center prepares, maintains, protects and enhances human capabilities and human-system performance from the scope of the individual to the entire force. The center works in four functional areas to meet current and future human-centered operational requirements:

-- Crew-system integration
-- Force readiness (human resources and aerospace medicine)
-- Crew protection
-- Environmental protection

The Armstrong Laboratory, Human Systems Program Office, the USAF School of Aerospace Medicine and an air base group are major units of the center.

•Armstrong Laboratory -- The Armstrong Laboratory does both in-house and contracted basic, exploratory, and advanced development research. The research, development and support activities of the laboratory are performed within five interdisciplinary technical directorates. The five directorates address current and future needs in aerospace medicine, crew systems, human resources, occupational and environmental health, and environics as identified below.

•*Aerospace Medicine Directorate* (AL/AO) (210) 536-4105 -- The Armstrong Medicine Directorate addresses the selection, protection and enhancement of humans in Air Force systems and operations. Mission-related research and specialized operational support are conducted in aeromedical consultation, epidemiology, drug testing and hyperbaric medicine.

- *Crew Systems Directorate* (AL/CF) (937) 785-2423 -- The Crew Systems Directorate, located at Wright-Patterson AFB, Ohio and Brooks AFB, Texas, seeks to optimize human combat performance and survivability and to ensure weapons systems configurations are compatible with human operator requirements.

- *Human Resources Directorate* (AL/HR) (210) 536-3426 -- The Human Resources Directorate develops unique human centered approaches to Manpower, Personnel, and Training (MPT) and logistics issues with special emphasis on: (1) personnel selection and ability measurement; (2) integration of MPT considerations throughout system development and acquisition; (3) more effective training for aircrews and other Air Force personnel; (4) better application of artificial intelligence and other computer-based technologies to address MPT concerns; and (5) better capture management and application of maintenance and other system related data.

- *Occupation & Environmental Health Directorate* (AL/OE) (210) 536-3421 -- The Occupation & Environmental Health Directorate assesses risks to personnel from hazardous materials, noise, electromagnetic radiation, and occupational processes in Air Force operations. The work combines human centered research and development in these emphasis areas with broad field consultation responsibilities to measure and reduce occupational illness and environmental hazards.

- *Environics Directorate* (AL/EQ) (904) 283-6299 -- The Environics Directorate supports the Air Force mission by reducing the cost of cleaning up past waste sites while assuring, through compliance, the completion of critical wartime and peacetime missions. Environmental compliance efforts are concerned primarily with developing technology to measure and minimize environmental impacts of volatile organic compounds and solvents, rocket propellants, aircraft fuels and emissions, and weapon system materials used in Air Force operations. Site restoration efforts entail developing technologies for cleaning contaminated Air Force locations worldwide.

- Human Systems Program Office -- The Human Systems Program Office develops and acquires systems such as life support, chemical warfare defense, air base support, and aeromedical casualty. With the resources of the deputy commander and other center organizations, the center merges humans with military systems' life cycles.

- USAF School of Aerospace Medicine -- The center's USAF School of Aerospace Medicine trains all aerospace medical people in the Air Force, including doctors, nurses and technicians. Its 40 or so instruction courses range from 5 weeks for some technical specialties to 3 years for residencies. About 5,000 students attend courses at the school every year.

- Air Base Group -- The 648 Support Group maintains the base. Tenants include the NASA Lunar Depository and the Air Force Center for Environmental Excellence which provides commanders a full range of technical services in environmental areas.

12. JOINT LOGISTICS SYSTEMS CENTER (JLSC) **Telephone: (937) 255-0428**

JLSC/RMP (UP Focal Point)
1864 4th Street, Suite 1
Wright-Patterson AFB OH 45433-7131

The JLSC is responsible for achieving Corporate Information Management goals for the DoD logistics business area by managing the design, development, implementation, and maintenance of an integrated DoD logistics process system and facilitating development and implementation of improved business practices.

13. OKLAHOMA CITY AIR LOGISTICS CENTER (OC-ALC) **Telephone: (405) 739-5105**

OC-ALC/PKXAA (UP Focal Point)
Bldg 3001 Staff Drive, Suite 2AI81A
Tinker AFB OK 73145-3015

The OC-ALC provides worldwide logistics support for a variety of weapon systems, including the B-2, B-1B, B-52, E-3, E-4, multipurpose 135-series aircraft, the Short Range Attack Missile, and the Air Launched Cruise Missile. Also, the center is responsible for a large family of aircraft engines.

The center is the exclusive Air Force Technology Repair Center for hydraulic/pneudraulic transmissions, air-driven accessories, oxygen components, engine and automatic flight control instruments, and B-1B avionics.

The center manages the Maintenance Analysis and Structural Integrity Information System, including recording systems for C-5 analysis.

The center's Contractor Logistics Support Division supports the Air Force One Presidential aircraft, the E-4B Airborne Command Post, and special air mission aircraft. These systems played an important role during Desert Storm and play a vital role in transporting high-ranking government officials worldwide.

14. OGDEN AIR LOGISTICS CENTER (OO-ALC) **Telephone: (801) 775-5306**

OO-ALC/PKXR (UP Focal Point)
Bldg 1289 (U) 6038 Aspen Ave
Hill AFB UT 84056-5805

The Ogden Air Logistics Center provides worldwide logistics support for the entire Air Force inventory of intercontinental ballistic missiles (ICBM), as well as the F-4 and F-16 aircraft. It also manages the Maverick air-to-ground missile, the GBU-15 and laser-guided bombs, and the Emergency Rocket Communications Systems. The Peacekeeper is its latest assignment.

Worldwide Manager -- Ogden is the logistics manager for all air munitions, solid propellants, and explosive devices used throughout the Air Force. All varieties of munitions, propellants, and explosive components (except nuclear) are tested at a range 48 miles west of the base.

The center is the Air Force worldwide manager for more than 2,500 training systems, from basic physiological training aids to complex, multimillion dollar flight simulation and mission rehearsal systems and airborne trainers.

Ogden also has a large international responsibility--maintaining more than 2,500 F-4 and F-16 aircraft for 21 countries, including support of new sales as well as long-term logistics support.

Worldwide, the center manages all Air Force aircraft landing gear, including wheels, brakes, struts, tires, and tubes. It also manages photographic and reconnaissance equipment.

Support Center Pacific -- The center's Support Center Pacific, Detachment 35, OO-ALC, is at Kadena Air Base, Japan. On the island of Okinawa, it provides depot-level maintenance and overhaul on critical aircraft system components and on-site aircraft structural engineering support for the entire Pacific Theater.

The detachment's mission is to perform maintenance exceeding intermediate-level capability with the flexibility to respond to emergency repair situations. It is a forward supply point for pre-positioned stock and is an alternative to shipping all needed supply support items from the United States. It can transport supplies or repaired parts to any point in the theater in just a few hours.

Its 120 members work in the two production units, a logistics unit, and a Pacific Parts Store unit.

15. SACRAMENTO AIR LOGISTICS CENTER (SM-ALC) **Telephone: (916) 643-4390**

SM-ALC/LHK (UP Focal Point)
3200 Peacekeeper Way, Suite 3
McClellan AFB CA 95652-1027

Sacramento Air Logistics Center provides logistics support for a wide variety of weapon systems, including the F-111 series, A-10, F-22, and F-117A. It also supports electronic systems and programs and space systems, including the Space Shuttle and the Meteorological Satellite Programs.

As it rapidly becomes one of the Air Force's most advanced technological centers, the center handles advanced electronics and specialized computer software applications. Its capabilities include Very High Speed Integrated Circuits, fiber optics, advanced composites, software design and development, and a unique robotics aircraft inspection system using neutron radiography.

The center has been chosen to support the F-22 Advanced Fighter. The ATF development program will carry the Air Force's fighter technology into the 21st century.

Sacramento also manages items for ground radar, airborne and ground generators, and airframe, electronic, and ground communications components.

Its technology repair centers repair ground electronics equipment, electrical components, hydraulic/pneudraulics accessories, and flight control instruments.

16. SAN ANTONIO AIR LOGISTICS CENTER (SA-ALC) **Telephone: (210) 925-7761**

SA-ALC/PKCB (UP Focal Point)
143 Billy Mitchell Rd
Kelly AFB TX 78241-6014

The SA-ALC provides worldwide logistics support for weapons systems including the C-5, T-37, T-38, and the new C-17. It manages more than 19,000 aircraft engines and the Air Force inventory of some 50,000 non-aircraft engines, more than half of the Air Force engine inventory. It is also responsible for automatic test, precision measuring, and aircraft ground support equipment.

The center manages the Air Force's nuclear ordnance. It determines requirements for all fuels and lubricants used by the Air Force. It is responsible for the total support for all liquid missile propellants used by the Air Force and NASA.

The Air Force's fleet of boats and ships is managed by the center, as is Detachment 40, 651 Support Group, Medina, Texas. The detachment supports the standard air munitions package, and the standard tank, rack, adapters, and pylon package program.

The center is the primary Air Force Technology Repair Center for electronic aerospace ground and elector-mechanical-mechanical support equipment and nuclear component support equipment. One of two repair centers for engine components, it has the only full-capability foundry in the Air Force with the latest in state-of-the-art equipment.

In 1991, the center dedicated a new bead-blasting corrosion control facility for stripping paint from airplanes. Not only is it the largest in the Air Force, it also incorporates the latest technology and will accommodate the C-5 and the C-17.

The center manufactures and machines parts for engines and fuel control systems with a unique stereo lithography system, one of the few of its kind in the world.

17. SPACE AND MISSILE SYSTEMS CENTER (SMC) **Telephone: (310) 336-4154**

SMC/XRT (UP Focal Point)
2420 Vela Way, Suite 1467-A2
Los Angeles AFB CA 90245-4659

The SMC designs and acquires space systems. For satellites, it oversees the launch, completes on-orbit checkouts, and then turns them over to Air Force Space Command, NASA and other federal agencies.

Its headquarters is at Los Angeles AFB, California. It has operating sites throughout the country. These include the operating location detachment at NASA's Johnson Spaceflight Center, Houston, Texas; and the Phillips Laboratory and 377 Air Base Wing at Kirtland AFB, New Mexico. Phillips Lab itself is divided into the following operating sites: the Propulsion Directorate, Edwards AFB, California; the Geophysics Directorate, Hanscom AFB, Massachusetts; and the Space and Missile Technology, Space Experiments, Advanced Weapons and Survivability, and Lasers and Imaging Directorates located at Kirtland AFB, New Mexico. Phillips Lab has its own UP focal point. (See item 18)

Major Space Programs

The center supports seven major space programs:

- Navstar Global Positioning System
- Defense Satellite Communications System
- Milstar Satellite
- Defense Support Program
- Titan IV Launch Vehicle
- Defense Meteorological Satellite Program
- Follow-On Early Warning System

The center also manages several Strategic Defense Initiative programs, including Brilliant Eyes and Brilliant Pebbles, which are designed to detect and destroy enemy missiles. It also works closely with the Air Force Space Command, Peterson AFB, Colorado, the prime user of military space systems.

Satellite Operations -- The center maintains communications and data handling operations with the Air Force Satellite Control Network at Space Command's Falcon AFB, Colorado, and Onizuka AFB, California. Launch programs supported and managed by the center include rocket booster's such as Atlas II, Titan II, and Titan IV, and military missions on the space shuttle.

It also assists the Space Command in satellite tracking, data acquisition, and command and control.

18. PHILLIPS LABORATORY (PL) **Telephone: (505) 846-6952**

PL/PKI (UP Focal Point)
3550 Aberdeen Ave SE
Kirtland AFB NM 87117-5776

PL leads, develops, focuses and transitions military space and missile technologies, with corporate responsibility for directed energy and geophysics technologies extending beyond its space applications. The principal technical mission areas are Space Experiments, Space and Missile, Propulsion, Lasers and Imaging, Advanced Weapons & Survivability, Geophysics, and Airborne Lasers.

19. WARNER ROBINS AIR LOGISTICS CENTER (WR-ALC)
Telephone: (912) 926-3576

WR-ALC/PKXA (UP Focal Point)
215 Byron Street
Robins AFB GA 31098-1611

The WL-ALC provides worldwide logistics management for the F-15 Eagle, C-141 Starlifter, and C-130 Hercules as well as utility aircraft, helicopters, missiles, and drone and remotely piloted vehicles. Also, in April 1991, the Air Force announced the selection of Robins AFB as the United States' main operating base for the E-8 Joint Surveillance and Target Attack Radar system aircraft.

Mission -- Overall, the center mission includes management of more than 200,000 items. These items represent the full range of avionics functions and technology, including aerospace communication and navigation equipment, airborne bomb and gun-directing systems, target acquisition systems, and most Air Force airborne electronic warfare equipment.

The center also manages the Low-Altitude Navigational Targeting Infrared for Night System, the Joint Tactical Information Distribution System, the Worldwide Military Command and Control System, fire fighting equipment, and vehicles of all types.

A significant part of its work force is directly involved in repairing, modifying, and overhauling F-15, C-141, and C-130 aircraft.

The center is the technology repair center for life support equipment, instruments (gyroscopes), airborne electronics, and aircraft propellers.

Geographic Support -- Warner Robins is responsible for procurement, supply, and maintenance functions for most Air Force bases along the East Coast, as well as the Atlantic Missile Test Range, Newfoundland, Labrador, Greenland, Iceland, Bermuda, the Azores, and all Air Force and Security Assistance Program activities in Europe, Africa, and the Middle East.